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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,577	12/21/2001	Peter Schertl	Mo6856/LeA 33,769	1797

157 7590 06/20/2003

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EXAMINER

RABAGO, ROBERTO

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 06/20/2003

2

Please find below and/or attached an Office communication concerning this application or proceeding.

#34

Office Action Summary

Application No.

10/019,577

Applicant(s)

SCHERTL ET AL.

Examiner

Rob Rábago

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

2. Claim 10 is objected to because of the following informality. The phrase "polymerization of copolymers" is objected to because there is nothing in the specification which teaches the polymerization of compounds which are already copolymers. It is clear from the specification that applicants meant to recite the polymerization of monomers. It would appear that the correct phrase should read "copolymerization of monomers". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-4, 9, 11, 13-15, 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the

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subject matter which applicant regards as the invention. The intended scope of "non-polar monomer" cannot be determined because applicants' generic statements regarding these monomers are inconsistent with the ordinary understanding of dipole moments with respect to organic molecules. Applicants' statement at page 4, numbered lines 21-22³, state that non-polar monomers have no charge separation. However, the exemplary list of non-polar monomers includes numerous monomers which show charge separation (i.e., non-zero dipole moment). In fact, all molecules which lack selected symmetry elements (such as an inversion center) have a net dipole, and would therefore fall into applicants' definition of a polar monomer, which are stated to contain "more or less highly pronounced partial charge distribution within the molecule"; (see pg. 283, section A. *Dipole Moments* from Introduction to Organic Chemistry 1981). Therefore, the required level of charge separation which applicants consider to divide polar from non-polar monomers cannot be determined. For the purpose of applying prior art, the claims have been searched based upon the exemplary monomer species recited at page 4, numbered lines 15-19 and 23-27.

5. The following is noted with respect to the phrase "method of using" as recited in claims 10, 21 and 22. Although these method claims do not contain any clear method steps, the intended meaning is clear from the specification and the ordinary level of skill in the art, and the claims have been examined given the following interpretations:

Claim 21 is deemed equivalent to: A method of making a molded article, wherein the improvement comprises making the molded article from the copolymer of claim 15.

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Claim 22 is deemed equivalent to: A method of making an adhesive, wherein the improvement comprises making the adhesive from the copolymer of claim 15.

Assuming applicants will incorporate into Claim 10 the language suggested in item 2 above, Claim 10 is deemed equivalent to: A method of copolymerization, wherein the improvement comprises using the composition of claim 5 as a copolymerization catalyst.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-10 and 13-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawasaki et al. (US 3,755,275).

The reference shows in examples 1-13 the preparation of acrylonitrile-butadiene copolymers using a catalyst composition comprising a vanadium compound, benzoyl peroxide and a Lewis acid cocatalyst, and therefore includes all claimed limitations. Regarding the limitations of claims 2 and 9, the claimed mechanism is merely the same proposed mechanism by which conventional transition metal-based insertion polymerizations are believed to take place, and therefore such a mechanism would be inherently present in the method disclosed in the reference. The burden of proof is

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shifted to applicants to show that the applied reference examples do not contain the claimed mechanism. In re Fitzgerald, 619 F.2d 67, 205 USPQ 594 (CCPA 1980).

8. Claims 5-7, 16, 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Grubbs et al. (US 5,728,785).

The reference shows in example 4 a polymerizable composition comprising a ruthenium complex and Lupersol 130, which is a mixture of two peroxides (see col. 5, lines 44-48), and therefore contains all claimed limitations.

9. Claims 1-11 and 13-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuntz (US 4,175,017).

The reference shows in example 1 the copolymerization of ethyl acrylate, isobutylene and butadiene using a catalyst comprising VOCl_3 , AlEtCl_2 and lauroyl peroxide (col. 7, line 61 through col. 8, line 19), further stating that the butadiene units are inserted randomly (col. 8, line 63). Example 2 goes on to use the example 1 copolymer in an apparatus to produce molded forms of the copolymer, and therefore the reference contains all claimed limitations. Regarding the limitations of claims 2 and 9, the claimed mechanism is merely the same proposed mechanism by which conventional transition metal-based insertion polymerizations are believed to take place, and therefore such a mechanism would be inherently present in the method disclosed in the reference. The burden of proof is shifted to applicants to show that the applied

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reference examples do not contain the claimed mechanism. In re Fitzgerald, 619 F.2d 67, 205 USPQ 594 (CCPA 1980).

10. Claims 5-9 and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Throckmorton (US 4,168,244).

The reference shows in example I (experiment 5), example II (experiments 4 and 5), example V (experiments 1-6) and other examples a polymerizable composition comprising an iron complex, a trialkylaluminum compound, and azobisisobutyronitrile, and therefore contains all claimed limitations. Regarding the limitations of claims 2 and 9, the claimed mechanism is merely the same proposed mechanism by which conventional transition metal-based insertion polymerizations are believed to take place, and therefore such a mechanism would be inherently present in the method disclosed in the reference. The burden of proof is shifted to applicants to show that the applied reference examples do not contain the claimed mechanism. In re Fitzgerald, 619 F.2d 67, 205 USPQ 594 (CCPA 1980).

11. The references cited on the International search Report have been considered.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rob Rábago whose telephone number is (703) 308-

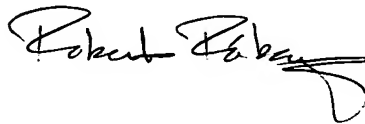
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4347. The examiner can normally be reached on Monday - Friday from 7:30 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached at (703) 308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Rob Rábago
Examiner
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A handwritten signature in black ink, appearing to read "Rob Rábago", with a stylized flourish at the end.

RR
June 13, 2003